

Amendments to the Claims

1. (Previously presented) An apparatus for cleaning a surface within a vessel, the apparatus comprising:

an elongate combustion conduit extending from an upstream end to a downstream end associated with an aperture in a wall of the vessel and positioned to direct a shock wave toward said surface;

a plurality of movable supports supporting weight of the combustion conduit at a plurality of locations along a length of the combustion conduit; and

a resilient member resiliently restraining the combustion conduit against recoil forces.

2. (Original) The apparatus of claim 1 wherein:
the resilient member couples the combustion conduit to the wall.

3. (Original) The apparatus of claim 1 wherein:
the resilient member comprises a metal coil spring.

4. (Original) The apparatus of claim 1 wherein:
the resilient member comprises a tension spring.

5. (Canceled)

6. (Previously presented) The apparatus of claim 1 wherein:
the plurality of supports accommodate longitudinal expansion and/or contraction of the combustion conduit.

7. (Previously presented) The apparatus of claim 1 wherein:
the plurality of supports comprise a plurality of trolleys each having wheels engaging a track on a support surface.

8. (Currently amended) The apparatus of claim 7 wherein:

the combustion conduit comprises a plurality of separable segments assembled end-to-end; and

each of the segments is supported atop a single associated one of the plurality of trolleys.

9. (Previously presented) The apparatus of claim 1 wherein:

the plurality of supports comprise a plurality of hangers.

10. (Withdrawn) A method for cleaning a surface within a vessel of a piece of industrial equipment, the vessel having a wall with an aperture therein, the method comprising:

introducing fuel and oxidizer to a conduit; and

initiating a reaction of the fuel and oxidizer so as to cause a shock wave to impinge upon the surface, a recoil force upon the conduit being resiliently taken up by a resilient member.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Previously presented) An industrial facility comprising:

a vessel having a wall separating an interior from an exterior, there being an aperture in the wall;

a surface within the vessel;

an elongate combustion conduit extending from an upstream end to a downstream end associated with an aperture in the wall and positioned to direct a shockwave toward the surface;

a plurality of supports supporting weight of the combustion conduit at a plurality of locations along a length of the combustion conduit, the supports movable to accommodate a shift of the combustion conduit from an initial position to a recoiled position and then returning to the initial position; and

a resilient member resiliently restraining the combustion conduit against recoil forces.

15. (Previously presented) The facility of claim 14 wherein the resilient member couples the combustion conduit to the wall.
16. (Previously presented) The facility of claim 15 wherein the resilient member comprises a metal coil spring.
17. (Previously presented) The facility of claim 14 wherein the surface is formed by a tube bundle.
18. (Previously presented) The facility of claim 16 wherein the surface is formed by a boiler tube bundle.
19. (Previously presented) The facility of claim 14 wherein the surface is formed by a boiler tube bundle.
20. (Previously presented) The apparatus of claim 1 in combination with the vessel, the vessel being a boiler having a boiler tube bundle as said surface.
21. (Previously presented) The apparatus of claim 1 wherein:
the resilient member comprises a tension spring coupling the combustion conduit to the wall so as to stretch in a shift of the conduit from an initial position to a recoiled position.
22. (Previously presented) The apparatus of claim 21 wherein:
the plurality of supports comprise a plurality of trolleys each having wheels engaging a track on a support surface.
23. (Previously presented) The apparatus of claim 21 wherein:
the tension spring is in series with a strap.
24. (Previously presented) The apparatus of claim 4 wherein:
the tension spring is in series with a strap.